

(PCT Article 36 and Rule 70)

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/011031

Box No. I	Basis of the report
1.	<p>With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.</p> <p><input type="checkbox"/> This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:</p> <p><input type="checkbox"/> international search (Rule 12.3 and 23.1(b))</p> <p><input type="checkbox"/> publication of the international application (Rule 12.4)</p> <p><input type="checkbox"/> international preliminary examination (Rule 55.2 and/or 55.3)</p> <p>2. With regard to the elements of the international application, this report is based on <i>(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)</i>:</p> <p><input type="checkbox"/> the international application as originally filed/furnished</p> <p><input checked="" type="checkbox"/> the description:</p> <p>pages <u>1-61</u> as originally filed/furnished</p> <p>pages* _____ received by this Authority on _____</p> <p>pages* _____ received by this Authority on _____</p> <p><input checked="" type="checkbox"/> the claims:</p> <p>nos. _____ as originally filed/furnished</p> <p>nos.* _____ as amended (together with any statement) under Article 19</p> <p>nos.* <u>1-52</u> received by this Authority on <u>23.09.2005 with letter of 21.09.2005</u></p> <p>nos.* _____ received by this Authority on _____</p> <p><input checked="" type="checkbox"/> the drawings:</p> <p>sheets <u>1/11-11/11</u> as originally filed/furnished</p> <p>sheets* _____ received by this Authority on _____</p> <p>sheets* _____ received by this Authority on _____</p> <p><input type="checkbox"/> a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.</p>
3.	<p><input type="checkbox"/> The amendments have resulted in the cancellation of:</p> <p><input type="checkbox"/> the description, pages _____</p> <p><input type="checkbox"/> the claims, nos. _____</p> <p><input type="checkbox"/> the drawings, sheets/figs _____</p> <p><input type="checkbox"/> the sequence listing (<i>specify</i>): _____</p> <p><input type="checkbox"/> any table(s) related to sequence listing (<i>specify</i>): _____</p>
4.	<p><input type="checkbox"/> This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).</p> <p><input type="checkbox"/> the description, pages _____</p> <p><input type="checkbox"/> the claims, nos. _____</p> <p><input type="checkbox"/> the drawings, sheets/figs _____</p> <p><input type="checkbox"/> the sequence listing (<i>specify</i>): _____</p> <p><input type="checkbox"/> any table(s) related to sequence listing (<i>specify</i>): _____</p>

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/011031

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1.	Statement		
	Novelty (N)	Claims <u>1-52</u>	YES
		Claims _____	NO
	Inventive step (IS)	Claims <u>1-52</u>	YES
		Claims _____	NO
	Industrial applicability (IA)	Claims <u>1-52</u>	YES
		Claims _____	NO
2.	Citations and explanations (Rule 70.7)		
1.	<p>The present report makes reference to the following documents:</p> <p>D1: EP 1 265 006 A (GENERAL MOTORS CORPORATION) 11 December 2002 (2002-12-11)</p> <p>D2: DE 199 12 480 A1 (ZF FRIEDRICHSHAFEN AG) 28 September 2000 (2000-09-28).</p>		
2.	INDEPENDENT CLAIM 1		
2.1	<p>Document D2 is considered to be the prior art closest to the subject matter of claim 1. Said document discloses (the references in parentheses are to document D2, see figure 3):</p> <p>a multistep automatic transmission with a drive shaft (10), an output shaft (11), at least three single planetary gear sets (2, 3, 4), and at least five shift elements (5-9), wherein:</p> <ul style="list-style-type: none"> - the three planetary gear sets (2, 3, 4) are mutually coaxial; - the second and third planetary gear sets (3, 4) are mutually adjacent in an axial direction; 		

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/011031

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
	<ul style="list-style-type: none">- a sun gear (20) of the third planetary gear set (4) can be attached to the transmission housing of the multistep automatic transmission via the first shift element (7);- the drive shaft (10) is connected to a sun gear (16) of the second planetary gear set (3);- the drive shaft (10) can be connected via the second shift element (8) to a sun gear (12) of the first planetary gear set (2) and/or via the fifth shift element (9) with a spider (15) of the first planetary gear set (2);- alternatively, the sun gear (12) of the first planetary gear set (2) can be attached to the transmission housing via the third shift element (5) and/or the spider (15) of the first planetary gear set (2) can be attached to the transmission housing via the fourth shift element (6); and- the output shaft (11) and an internal gear (14) of the first planetary set (2) and a spider of the third planetary gear set (4) are interconnected and a spider (19) of the second planetary gear set (3) is connected to an internal gear (22) of the third planetary gear set (4) and the spider (15) of the first planetary gear set (2) is connected to an internal gear (18) of the second planetary gear set (3); and <p style="text-align: right;">/...</p>

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
	<ul style="list-style-type: none">- only one shaft (10) passes centrically in an axial direction right through the second planetary gear set (3); and- the first shift element (7) is in the form of a multi-disk brake. <p>Thus, the subject matter of claim 1 differs from the known automatic transmission in that:</p> <ul style="list-style-type: none">a) the second and fifth shift element, viewed in a three-dimensional manner, are axially arranged between the first and second planetary gear sets; andb) the fourth shift element, viewed in a three-dimensional manner, is in a region radially above the planetary gear sets. <p>The subject matter of claim 1 is therefore novel (PCT Article 33(2)).</p> <p>2.2 The problem addressed by the present invention can consequently be regarded as that of configuring the known transmission in a more compact manner.</p> <p>The solution to the above problem, as proposed in claim 1 of the present application, involves an inventive step (PCT Article 33(3)). The reasons are as follows:</p> <p style="text-align: right;">/...</p>

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/011031

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

although document D1 (see figure 1) discloses a similar transmission, in which the corresponding second and fifth shift elements (50 and 52) are between the first and the second planetary gear set (30 and 40), said transmission does not have two features of the preamble of claim 1 and feature b) is not disclosed in document D1. Neither D1 nor D2 contains anything to suggest this feature which, furthermore, contributes to the compact design of the transmission.

- 2.3 Claims 2 to 52 are dependent on claim 1 and, in consequence, likewise satisfy the requirements of the PCT in respect of novelty and inventive step.